



Issue 20

The Steward

Newsletter of Alberta's Natural and Protected Areas
and the People Who Care for Them

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October 1992

Management Plan for Grizzly Bears

A Review by Susan Owen

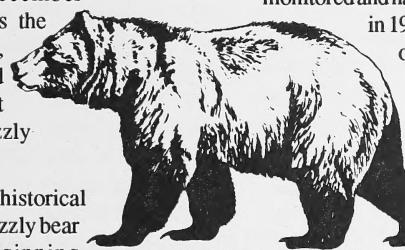
There have been notable fluctuations in provincial grizzly bear (*Ursus arctos*) populations throughout the past 100 years. This concern has resulted in an intensive plan by Alberta Forestry, Lands and Wildlife's Fish and Wildlife Division to protect and manage this rare and regal animal.

The Management Plan for Grizzly Bears in Alberta, a 164-page document, compiled by J.A. Nagy and J.R. Gunson, was published in December 1990. It outlines the division's goals, objectives and management strategies for grizzly bears in Alberta.

The plan contains historical information on grizzly bear populations, beginning with the late 1700s. It details the past practices of unrestricted sport and commercial exploitation, the first attempts to protect grizzlies, information on the grizzly bear's biology and habitat needs, and the present status of grizzlies in Alberta.

Although it is a very detailed, technical paper, it provides thoughtful insight into the nature of the grizzly. The plan outlines the man-made dangers that threaten its habitat (clear-cut logging was outlined as one of the major habitat modifiers) and presents the challenge we face in preserving and protecting the grizzly for generations to come.

The report states that the provincial grizzly bear population has been overexploited in recent years. The present population of grizzlies, including the bears in three national parks, is estimated at 790. The Fish and Wildlife Division recommend, as a goal, a provincial population of 1000.



Ecotourism and nonconsumptive recreation, such as observation sites for grizzly viewing and a wildlife outfitting industry, will be encouraged as a priority in some areas of the province. The division plans to coordinate management of shared grizzly populations with neighbouring wildlife agencies and will educate outdoor users and the general public about the ecological values of grizzlies.

To allow population growth, recreational hunting of grizzly bears will be intensively monitored and harvesting reduced. As began in 1989, grizzly bears are hunted only on a limited entry draw, with harvest restricted to two per cent of the population in each Bear Management Area (BMA). Once population goals are attained, harvest will be at the 4 percent level. Maximum, man-caused mortality will not exceed 6 percent in a BMA.

In historical problem areas, a strategy to minimize bear-cattle conflicts on Crown lands will be initiated through discussions with the appropriate land management agencies and grazing patrons.

The report stated that diverse habitats can maintain productive grizzly bear populations. Diverse habitats provide a variety of plant communities, each of which may be seasonally important in meeting a bear's total annual needs. Methods of habitat management that encourage forest diversity include selective cutting, burning, seeding of forbs and planting of berry-producing plants. Gunson and Nagy reported that timber harvesting should be scheduled within cutting units so that an area produces a sustained, even flow of grizzly bear foods. Selective patch cutting, prescribed burning, seeding of

graminoids, legumes and berry-producing shrubs have been used to improve grizzly habitats.

As Nagy and Gunson reported, remote habitats and protected areas, such as national parks and wilderness areas, continue to provide some security for grizzly bears in Alberta. As more "intensive use" of Alberta's forested areas occurs, however, grizzly bears must receive a high level of understanding, tolerance and management if they are to survive in reasonable numbers into the next century.

If you are interested in receiving a copy of the Management Plan for Grizzly Bears in Alberta, contact the Information Centre, Alberta Energy/Forestry, Lands and Wildlife, Main Floor, Bramalea Building at 9920 - 108 Street, Edmonton, Alberta, T5K 2M4, or phone (403) 427-3590. In Calgary, contact the Information Centre at (403) 297-6324.

Talk by Dr. James Butler

Small Protected Areas: their benefit to society and biological conservation.

Wednesday, Oct. 21, 1992
Provincial Museum Theatre

Dr. Butler will give highlights of a recent North American survey of managers of small, protected areas.

Sponsored by Wagner Natural Area Society



Hopkins - Steward Profile

Doris and Eric Hopkins are full of surprises, and yet everything about them seems perfectly in character.

Sitting perched on their deck, which overlooks Coyote Lake, on a perfect fall afternoon is like living a scene from On Golden Pond. The birds are chirping, the loons are calling and the resident red squirrel (who happens to be in the bad books for trying to take up winter residence inside the house) scurries back and forth to his new found hibernation spot. Everything seems exactly as it should. There's a feeling of total peace.

Both avid birders and outdoor enthusiasts, the Hopkins found this spot during their search for a retirement home. "We were looking for a place in the country because when we lived in the city, we spent most of our time driving out of it," says Doris. Equipped with topographical maps and a lot of patience, they set out on their search.

"We were lucky," says Eric. "We found this spot in September 1972 and bought it at an auction in November."

Once the Hopkins owned the land, the work began. There wasn't a road, so the first thing they did was clear a trail in. They used a skidoo and hauled in material for a warm-up shack. They went off on an adventure to Africa with CUSO and the development halted for two years, but when they returned, they designed and built a beautiful log home overlooking the lake. That was 15 years ago.

"Our intention was to build a house and live here," chuckles Doris. "Once we were out here though, we realized this was quite a special place from a wilderness point of view and that really we were onto something that should be protected."

And that's exactly what they set out to do. In 1987, North America celebrated the centennial of the first nature sanctuary, which triggered the Hopkins into thinking that's what they'd like to see happen with Coyote Lake - make it a sanctuary. They contacted the Canadian Nature Federation and Cam Finlay got the process started.

One 1/4 section of the land around the lake was already owned by the government, and the Hopkins were instrumental in getting that set aside as part of the Coyote Lake Natural Area. The remaining land around the lake is privately owned by the Hopkins and their neighbour, who doesn't presently use the one quarter section of land.

The Hopkins' vision is to see all of the lake preserved. They have offered to leave their land to the Canadian Nature Federation with one condition - that their neighbour's land also be bought and the whole lake be preserved. "It's one of only a very few untouched lakes in a populated area of Alberta," says Eric. The Canadian Nature Federation and the Nature Conservancy of Canada both agree its a great idea and negotiations are underway.

In the meantime, the Hopkins are stewards of the Coyote Lake Natural Area. Also, in response to a request from the County of Leduc, they have created a nature sanctuary on their own land. "We've always had a lot of people come out so we were pleased to do so," said Doris. An ex-school teacher, she had been visiting the local schools for years and inviting the children out to Coyote Lake. This year about 250 children visited in May and June, and then there were the senior's groups, friends and friends of friends' friends.

Eric and Doris Hopkins relax on the porch of their Coyote Lake home.



And what a pleasant place to visit. The land itself is beautiful. On the natural area,

there's a number of rare plant species including Wolffia columbiana, an aquatic plant species newly recorded in the province. The site supports 22 species of mammals, 154 species of birds, 3 species of amphibians, 2 species of fish, 1 species of reptile and 266 species of vascular plants. If you're there at the right time you may see everything from a coyote to a moose, elk, deer or, if you're lucky, a black bear. As well, various species of breeding and migrating waterbirds use the lake. There are roughed out trails for walking or skiing in the Coyote Lake Nature Sanctuary. And then there are the Hopkins - an interesting, energetic, enthusiastic and caring couple. Pack a picnic lunch and enjoy!

Private Landowners Legally Enabled To Protect Habitat

Subdivision rules have been changed by the Alberta Planning Board to allow developers to set aside wildlife habitat in perpetuity by way of a "restricted covenant" reported the *Edmonton Journal* in March.

This arrangement can only be changed legally with the consent of the Fish and Wildlife Division of Alberta Forestry, Lands and Wildlife.

The Alberta planning board said that a restricted covenant will protect the natural habitat in much the same manner as a municipally-owned environmental reserve, according to the *Journal*.

The Ruling came in a decision on an application to subdivide a parcel at Antler Lake, regarded as an important wildlife habitat area in Strathcona County.

The board had previously allowed the subdivision, provided part would be handed over as a municipally-owned environmental reserve.

Concerned about public access to the reserve and that the county might later sell the reserve land, owners Lock and Kathy Girvan re-applied for a restricted covenant to cover part of the land.

Contact: Alberta Planning Board
ph: 403-427-4864 on local RITE



Alberta's Natural Heritage Information System

The Natural Areas Program is sponsored by
Alberta Forestry, Lands and Wildlife

What: The Alberta Natural Heritage Information System (ANHIS) provides information on the natural ecological diversity of the province. By consolidating data on significant and sensitive natural features, protected areas and rare plant species, it enables efficient cataloguing, comprehensive analysis and quick retrieval. The PC-based computer, using dBase IV, provides a flexible and accessible system. Biophysical, administrative and management information is recorded and indexed by several criteria, including location, name and category. A limited number of databases have been converted to a GIS (Geographic Information System) format (PC Arc/dBase). For a complete listing of the files, a variety of manual and paper map files are used to record information.

Why: Alberta has a rich diversity of natural heritage features encompassing grassland, parkland, boreal, Canadian Shield, foothills and mountain natural regions. As development of the province progresses with consequent alterations, there is an increasing need to balance these developments with ensuring the continuing existence and integrity of this natural heritage diversity. To protect representative and significant examples of Alberta's natural heritage as an integral part of a sustainable environment an efficient system is required to catalogue and track significant species, natural communities and features. The ANHIS provides an invaluable planning tool to address a wide variety of needs. Its uses range from conservation planning, administration and management to the siting of residential, commercial, industrial and utility developments.

Where: The ANHIS is located in the Natural and Protected Areas office of the Public lands Division, Alberta Forestry, Lands and Wildlife. This section is responsible for all provincial protected areas administrative data. Enquiries can be made in person or mailed to: **Natural and Protected Areas, 4th Floor, 9915 - 108 Street, Edmonton, Alberta T5K 2C9.** Enquiries can also be faxed (422-4244) or telephoned (427-5209). The office is open Monday through Friday from 8:15 am to 4:30 pm.

Who: The system is operated and maintained by Natural and Protected Areas. The data is available to anyone requiring information about Alberta's natural heritage.

How: The system is used on a daily basis to answer telephone and written requests about the natural heritage resources of the province. A variety of printed reports, both standard and custom, are also available. Standard reports are mailed out on request. The response time varies depending on the complexity of the request. Copies of the digital files (dBase IV format) maybe available on floppy diskette for a nominal charge.

Future Enhancements: Improvements are continually being made to the system to make it more efficient, comprehensive and effective. The data is being refined and updated on a continuing basis to improve accuracy and ensure that it is kept current. Digital provincial protected areas and environmentally significant areas maps will be available soon.



Alberta's Natural Areas A guide to selected sites

There are now 118 Natural Areas in the province, representing various aspects of Alberta's biological and physical diversity. Thirty-two of these natural areas are featured in this handy, easy-to-use guide. Find out what there is to see and what to look for when you visit these sites. The guide includes the following information for each natural area:

- Habitat types found in the natural area
- Site facilities
- General overview, terrain, wildlife species, etc.
- Local contact for more information
- Map showing location of natural area and access to it

Get your own copy at one of the following Maps Alberta locations:

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Ecological Integrity of Protected Areas

P. Lee and J. Gould, Natural and Protected Areas

Ecosystems within protected areas such as Natural Areas must be managed in such a way that ecological processes are maintained and that genetic, species and ecosystem diversity are assured for the future. Such management in protected areas is referred to as the maintenance of "ecological integrity". In providing this kind of management for our protected areas in Alberta, there are a number of factors to consider.

Protected areas should not be viewed as isolated blocks of land, immune from outside influences. They are not closed, self-sustaining systems. They are intricately linked to other parts of the environment either through activities occurring on or adjacent to the sites, or through larger global circumstances such as climate change. Pressures, from outside or within, all affect the survival of protected areas.

Global issues that threaten protected areas include:

- global warming;
- ozone depletion;
- human population growth; and
- pollution.

Other more specific threats include:

- our lack of knowledge on how ecosystems work. The effects of threats and management activities on the long-term life of protected areas are unknown;
- incompatible use of land adjacent to protected areas. This can lead to loss of buffers, increased edge effect, introduction of exotic species, fragmented or lost habitat, pollution (air, water, noise), altered watercourses and destructive land uses spilling over into protected areas;

- land use planning, which views protected areas in isolation from regional issues or bases decisions on interests other than the best use of the land. Protected areas that become islands are vulnerable to the loss of ecological integrity and species diversity;
- lack of understanding on the importance of protected areas;
- resource exploitation within protected areas;
- illegal sale of wildlife (including plants);
- inappropriate boundaries that ignore ecology; and
- inadequate levels of funding and human resources dedicated to protected area or natural heritage programs.

Ecosystem management

The definition of an ecosystem is complex, meaning different things to different people. However, the basic idea of any definition is that all parts of the system are linked. This means that a change to any part of that ecosystem, whether biological or physical, affects the whole system. For example, the loss of one species of plant could mean the loss of dozens of other species because they are linked in some way.

Drawing a boundary around an area does not ensure long-term protection, partly because there are no tidy boundaries around ecosystems. Long-term protection depends on the protected area functioning as a viable unit, being managed with conservation values, and being surrounded by land that is used in a compatible manner.

Monitoring the response of indicator species is a good way to predict the overall effect of human-directed activities on an area. Our management practices must be flexible so we can change our activities if they are having an adverse effect on the area.

Ecosystem management for protected areas focuses on managing external threats, as well as establishing specific ecological objectives for protected areas and their surrounding lands. An ecological objective is one that focuses on the clearly identified important ecosystems and ecosystem segments within a protected area.

Research, monitoring and public education should be administered through partnerships with surrounding landowners and stakeholders. Ecosystem management should also be integrated with regional plans and site-specific protected area management plans and/or guidelines. As well, ecosystem management depends on adequate scientific information and an extensive, sophisticated and up-to-date information base and information management system.

Special management issues

A range of management issues are important for and specific to each protected natural heritage area in Alberta. As well, a few special management issues represent threats and/or opportunities for all or most protected areas in the province: recreation/tourism, petroleum and natural gas exploration and development, forest management and domestic grazing.

Pressure to develop and expand recreation and tourism uses and related facilities in protected areas will continue to increase. Within controlled levels, some of these activities are compatible with the objectives of the areas, while unrestricted uses can be detrimental. Specific recreation activities such as hunting and motorized vehicle access are also important management issues. Ecotourism is the preferred type of tourism in protected areas because it is a powerful force for conservation as well as a contributor to economic diversification.

Petroleum and natural gas activity is permitted on some protected areas. This activity can often be accommodated and result in very minimal land surface and biodiversity disturbance. The level of such

continued on page 10



Ecotourism: bird watchers at Beaverhill Lake.



Cattle grazing may be an option on some grassland protected areas.

Raptor Migration Across the Kananaskis Valley

March 20-28, 1992

Adapted from an article by Peter Sherrington in *Pica - The newsletter of The Calgary Field Naturalists' Society*

"If there's ever going to be a raptor migration in this valley, it's going to be today." I was walking with Des Allen to the Mount Lorette Natural Area, of which he is a steward, at 11 a.m. on March 20. Des and I had been working on the birds of the area for over a year, but this was our first visit in March. During the previous year, we had recorded a number of raptor species, but mainly as breeding birds, with only a few sharp-shinned hawks and a northern harrier as obvious passage birds.

The reason for my optimism was the weather: a cloudless, sunny day, the temperature approaching 10°C, and a light, steady 5 to 8 km/h southerly breeze. At about 11:30, we heard a pine grosbeak singing and located it at the top of an aspen. As I was looking at the bird through my binoculars, I noticed a tiny dot in the clear blue sky, well beyond the grosbeak — a soaring golden eagle.

After this, we began to scan the ridges of the surrounding mountains every 10 minutes. The following hour yielded sightings of single birds - northern goshawk, prairie falcon and red-tailed hawk - in the Mount Lorette area. All of these sightings were probably local breeding birds. It was not until about 12:30 that we saw our next eagles, two adults soaring around the cliffs of Mount Lorette. Was the bird we had seen at 11:30 one of the birds we were now looking at? Five minutes later there were three eagles soaring around the mountain. Ah - there must be *three* birds! Then, five were soaring together, joined by a *sixth* that had just crossed the valley from the Fisher Range.

By this time, we were getting excited. We soon realized that there was a steady procession of eagles appearing in the south to the west of Mount McDougall, in the vicinity of Old Baldy. The birds soared

over the peaks of the westernmost ridge of the Fisher Range, changing their wing aspect to power-glide in a northwest direction to the next peak. They invariably soared over the end peak of the Fisher Range before power-gliding across the Kananaskis Valley

to Mount Lorette. Here, they again soared before heading off in a power-glide to the northwest.

Only on rare occasions did we see an eagle flap its wings.

The birds generally migrated singly or in small groups, although at one time we could see 13 eagles soaring together over Mount Lorette.

By the time we left the area at 17:40, we had recorded 103 golden eagles and seven bald eagles, all passing along exactly the same route, crossing the Kananaskis Valley in a band no more than 100 m wide. The great majority of the golden eagles were adults.

Following this discovery, I quickly changed my plans for the "Early Bird" trip that I was going to lead on the 22nd. Instead of heading for the prairies, I decided to return to Kananaskis Valley. On Sunday morning, accompanied by 27 Calgary Field Naturalist Society members, we made leisurely progress to the valley, arriving at 12:15. On the way, we had seen 14 bald eagles, 1 golden eagle, 2 rough-legged hawks and 2 prairie falcons, among other birds. At Sibbald Flats, we saw a number of eagles soaring distantly over Moose Mountain and heard two barred owls calling (at 11:23!).

Conditions in Kananaskis Valley again looked favourable with light southerly winds, little cloud and a temperature of about 15°C. We had parked about 1 km west of the Kananaskis River, just north of the road to the Nakiska ski area. At 12:15, we saw our first two golden eagles, quickly followed by another golden eagle and a cooper's hawk.

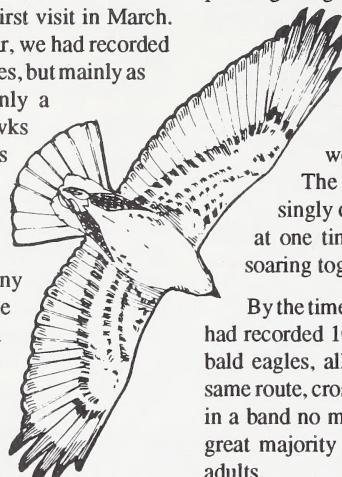
The party then moved north to a spot, adjacent to the Kananaskis River, near the

pumps used by the ski resort to make snow. By 14:10, we had seen 33 golden eagles, 1 bald eagle and 3 cooper's hawks. The wind then shifted, becoming southwesterly, moderate and gusty, and for the next hour and 20 minutes, only two golden and three bald eagles crossed the valley. We took advantage of this lull to move farther north to the southwestern flank of Hummingbird Plume Hill. We had only been there a few minutes when the tempo picked up again, coincident with the wind returning to a southerly direction. We recorded our 100th golden eagle at 16:56, and the pace continued to quicken with the birds passing northwest in groups of up to 16. At 16:00, two large falcons crossed the valley along exactly the same path as the eagles. One was definitely a gyrfalcon; the other probably was as well.

Between 17:26 and 17:36, 35 eagles crossed the valley, the greatest number seen in a 10-minute period that day. The 200 mark was reached at 17:53 and by the time the last raptor was logged at 18:32, we had recorded 247 golden eagles, 9 bald eagles, 4 or 5 cooper's hawks and 1 or 2 gyrfalcons. As on March 20, the great majority of the golden eagles were adults, and every raptor followed exactly the same route as on the previous date.

On March 24, I returned to the area with Des Allen. After meeting Ross Dickson, who was hawk-watching at the Mount Allen viewpoint, we proceeded to the same place from where we had watched on the 20th. This time, the weather conditions were quite different. Although still sunny, it was only about 5°C with a light northerly wind from 13:10 to 15:10, changing to southwesterly gusty and even cooler after 15:10. Raptor movement was slow and by 18:30 we had recorded 18 golden eagles, 1 bald eagle and 1 *Accipiter* sp. (probably cooper's hawk).

The interesting thing about this day's observations was that they showed raptors crossing the valley at exactly the same point under a variety of wind and temperature conditions. The only difference noted, in



comparison with the previous days, was that the birds appeared to take a slightly different route through the Fisher Range, probably passing to the east of Mount McDougall.

On March 26, in an attempt to get closer to the birds, I climbed Old Baldy (with considerable difficulty and effort because of thick alder brush and deep snow), but I only succeeded in seeing one golden eagle. After descending (again with difficulty), I drove to the Mount Allen viewpoint where I immediately spotted two golden eagles soaring above the summit of Mount Lorette! I suspect that the birds had again been passing to the east of Mount McDougall and could not be seen from Old Baldy. My final visit during this period was on March 28 with my wife, Barbara. Conditions were again sunny, about 5°C with a 5 to 8 km/h southerly to southwesterly. From 14:15 to 17:00 we recorded 12 golden eagles and 4 bald eagles, again crossing the valley at the same spot. The only exception was an adult bald eagle that suddenly turned north halfway across that valley and flew down the Kananaskis River. Just over 30 minutes later we were watching an immature bald eagle crossing the valley, when it was joined by an adult bald eagle coming from the west. Both birds then proceeded to Mount Lorette and thence to the northwest. The adult bird was almost certainly the one that had headed north earlier, thus becoming the exception that proved the rule.

During the period March 20 to 28, I recorded a total of 21 bald eagles, 4 cooper's hawks, 2 *Accipiter* sp., 383 golden eagles, 1 gyrfalcon and 1 large *Falco* sp., for a grand total of 412 raptors. All these birds crossed the Kananaskis Valley between the end of the Fisher Range and Mount Lorette at exactly the same spot under a variety of weather conditions.

These observations accord with a major eagle movement observed by Mary Gartshore, Geoff Holroyd and John Woods on March 15 and 16, 1987 (unpublished note "Major Golden Eagle Migration in the Rockies", 1987). They recorded 246 golden eagles and 5 bald eagles on the 15th, and 150 golden and 2 bald eagles on the 16th. The birds were observed in the Bow Valley near Canmore, appearing over the southwest face of Grotto Mountain, power-gliding to the

northwest to Mount Charles Stewart, and then disappearing to the northwest along the Fairholm Range. The great majority of the eagles were adults.

Grotto Mountain is due northwest of Mount Lorette. There is a remarkable similarity in the timing, numbers, behaviour and age structure of these two events that suggests that more than coincidence is involved.

The Kananaskis data also are consistent with sightings made by Wayne Smith at Windy Point in the Sheep River Valley (personal communication). In recent years, significant movements of golden eagles have been recorded, but most have been seen flying well to the west of the Windy Point viewpoint. It is interesting to note that on March 22, Wayne noted about 150 golden eagles passing north, well to the west of Windy Point.

Conclusions

1. Significant golden eagle movement to the northwest occurs in the spring along the inside of the Front Ranges of the Rocky Mountains.
2. This movement involves mainly adult birds.
3. Other raptor species follow this route in smaller numbers.
4. This passage is probably consistent and predictable from year to year.
5. The birds probably originate in the Wyoming Basin, which supports the densest wintering population of golden eagles in North America (T. Root, 1988 "Atlas of Wintering North American Birds: An analysis of Christmas Bird Count Data", U. of Chicago Press.). The Wyoming Basin is immediately east of the Rocky Mountains.
6. North of the Crowsnest Pass, the birds made use of the updrafts and thermals generated along the northwest-southwest oriented thrust-sheets of limestone that constitute the Front Ranges in this part of the Rockies. Their probable route is as follows: Livingston Range, Highwood Range, Cougar Mountain, Fisher Range, Mount Lorette, Pigeon Mountain, Grotto

Mountain, Fairholm Range, Palliser Range, Bare Range and continuing to the northwest.

7. Maximum movement probably coincides with optimal weather conditions, i.e., warm, clear days with fairly light southerly winds.
8. It remains to be seen if the same route is followed on the southward passage.
9. The probable reasons that this spectacular migration has not been observed more often are that it takes place at a considerable altitude, the flight path is remarkably narrow, and heavy passage is confined to a few days when conditions are optimal. It is conceivable that in some years optimal conditions do not develop and the passage may be more prolonged and/or diffuse.
10. Much more work needs to be done to confirm (or disprove) these speculations. I suspect, however, that it might be possible to map a consistent migration path from Wyoming (or even farther south) north to the Yukon.

Milk River Management Plan Signed

The Operational Management Plan for Milk River Natural Area and Kennedy Coulee Ecological Reserve was officially approved this September. The Honourable Don Sparrow, Minister of Tourism, Parks and Recreation and LeRoy Fjordbotten, Minister of Forestry, Lands and Wildlife signed the plan during a brief ceremony in Medicine Hat, September 24. The signing represents a significant step in the twenty year long struggle to ensure the long-term protection of the area.

The next phase is the implementation, monitoring and review of management strategies. The management committee which drafted the plan will be responsible for guiding this phase as well.

A summary of the contents of the management plan and its significance is found in "The Steward", July 1992. For more information contact Joyce Gould, Natural and Protected Areas, 427-5209.

Site Activities

May 1, 1992 - September 30, 1992

- | | | |
|-----|-------------------------|---|
| 19 | Kleskun Creek | • road allowance closed |
| 21 | Dunvegan | • seismic program rejected |
| 26 | Sand Lake | • signs installed |
| 44 | Edson South | • application for sand and gravel removal rejected |
| 61 | Opal | • seismic approved on existing lines |
| 62 | North Cooking Lake | • Wye Road widening completed
• County to install fence along road
• tansy and Canada thistle hand mowed |
| 66 | Red Rock Coulee | • off highway vehicle use reported |
| 71 | North Bruderheim | • road upgraded; trees reported cut; several instances of vandalism reported |
| 87 | Beaverhill Lake | • signs, benches and plaques installed in memory of Bob Turner |
| 89 | Primula | • pipeline alignment requested to be moved to boundary of site |
| 100 | Edgerton | • seismic approved on existing or hand cut lines only |
| 142 | Wagner | • interchange construction started; new boardwalk sections built for Cabin trail; Hazardous waste transfer station proposed for Ellis Industrial Park just south of natural area |
| 213 | Halfmoon Lake | • Licence of Occupation for trail ride operation renewed |
| 220 | Battle Lake South | • oil company requested to reclaim cleared area |
| 224 | Genesee | • seismic program rejected; public open house to review addition to area scheduled for October 6 at Genesee Hall |
| 266 | George Lake | • seismic restricted to existing lines |
| 273 | Schrader-Red Deer River | • site 373 (Red Deer River) combined with 273 |
| 275 | Coyote Lake | • seismic approved only on existing lines |
| 280 | Poplar Creek | • seismic approved only on hand cut lines |
| 302 | Washout-Saskatchewan | • unauthorized clearing and timber cutting reported; local timber permit (LTP) issued to clean up site |
| 328 | Bear River | • proposal for gun range rejected |
| 346 | Carseland | • application for timber cutting rejected |
| 360 | Wahstao | • tie-in pipeline constructed adjacent to existing line |
| 396 | Spruce Island Lake | • seismic approved only on hand cut lines |
| 412 | Milk River | • Milk River Management Society Incorporated; Recreation lease issued to Society; site not grazed due to drought; rare plant monitoring program started; monitoring training session for stewards held; leopard frog and breeding bird surveys completed; large population of leopard frogs reported; road allowance to be closed |
| 414 | Coronado | • sand removal reported; signs installed |
| 420 | Saskatoon Mountain | • fence repaired; grazing lease cancelled |
| 430 | Vega (Neerlandia) | • site name changed from Neerlandia |
| 432 | Pine Sands | • application made to reserve additional land for natural area |
| 453 | Riverlot 56 | • noxious weeds (Canada thistle and field scabious) mowed |
| 455 | Telfordville | • weed (tansy) mowed |
| 459 | Holmes Crossing | • request to oil company to reclaim wellsite and access road |
| 483 | Sundre North | • fencing completed |
| 491 | Astotin | • clean up of garbage completed |



504 Bentz Lake
 512 Wabamun Lake
 517 Mount Watt
 527 Braithwaite
 532 Hollow Lake
 537 Eaglenest
 545 Centre of Alberta
 547 Hot Pot
 548 Burning Sulphur
 B278 Amisk Valley

- approval given to install nest boxes
- weed (tansy) mowed; off highway vehicle and fence vandalism reported
- application for additional lands to be added to natural area
- Environment cleaned up dumped animal feed concentrate
- seismic approved only on hand cut lines
- special feature/grazing impact study started
- bear statue/plaque installed
- application for new natural area
- application for new natural area
- special features inventory started

NOTE: A limited number of “No Garbage Dumping”, “No Fires”, and “Foot Access Only” signs are now available to stewards through the Volunteer Steward Coordinator’s office.

Volunteer Steward Needs Assessment Survey Results

Thank you to those stewards who responded to the 1992 Volunteer Steward Needs Assessment Survey. We greatly appreciate your time and effort and your input will be used in planning your 1993 Volunteer Steward Conference.

Based on the survey results, we have tentatively set the conference date for May 28-30, 1993 (Friday evening until Sunday noon). The location will be the Rocky Mountain YMCA, near Exshaw. This facility is much larger than the 1991 conference site, and will accommodate a greater number of participants. As well, there are a variety of natural areas in the vicinity that can be used for field trips.

We asked you to select conference sessions; topics rated as *high* were given 10 points, *medium* - 5 points, and *low* - 1 point. We've totalled the points for each topic and will try to include as many of the "priorities" as possible in the 1993 conference program. The following topics received the highest scores;

Priority 1 Topics (topics that received 276 points or more)	Priority 2 Topics (175 - 275 points)
<ul style="list-style-type: none">wetlands identification (ecology identification)how to inspect a natural areamonitoring species and ecological healthmushroom identificationconservation educationaspen parkland ecologyadvanced bird watchingforest ecologyrare / threatened / endangered species (field identification)mystery session (identification of animal signs)mountain ecology (understanding natural communities)river corridor ecology (understanding natural communities)restoring natural communitiesdeveloping a site management planold growth forest ecology	<ul style="list-style-type: none">aquatic plant identificationecological region approach to plant identificationbeginner bird watchingreptile and amphibian identificationlandform, geology, soil identificationgrassland ecologynatural successionfragmentationgenerating community support / involvementecotourismvolunteer empowermentmanaging multiple use areasmanaging for biodiversityresearch projects on natural areas

We asked what other activities you would like to see at the conference, and you said:

nature films	30	book sale	30
slide show	27	share fair	14
poster session	14	field trip	13

Many stewards also made specific recommendations on activities the conference should include.

A sample of the suggestions made included: a central registry for programs like SEED (Summer Employment Experience Development) and STEP (Summer Temporary Employment Program) grant applications; information on beavers (natural history and control); historical accounts of the sites; workshops on promoting children's interest in the environment (development of activities that children can do in a Natural Area, field trips to Natural Areas, speakers at school, etc.); nature photography sessions, supervisory training information, family programs, an auction and ... a book swap. One steward stressed the importance of balancing the conference between being informative and fun.

First we need to set up the Conference Planning Committee, which will consist of volunteers, staff members and volunteer stewards. If you would like to be part of this committee, please contact Sandra Myers at 427-5209.

Thank you for all the positive comments on the 1991 Volunteer Steward Conference. With your helpful suggestions and advice, we feel the 1993 Conference will be even better. Watch for further updates on the conference in upcoming newsletters.

There were lots of great ideas, and once established, the planning committee will try to incorporate as many as possible into the agenda.

The Loov Family - Pioneers of Battle Lake

As we celebrate Canada's 125th birthday, it is interesting to look back over the century and see how much things have changed. Some may say things were better back then, but others would disagree. Two of those others are Verner Loov and sister Solveig Penner.

Verner and Solveig moved with their parents, William and Asta, to Battle Lake North in 1933. The constant "No Help Wanted" signs of the depression forced the Loov family to move from Calgary and look for an area where they could live off the land. William had gone to inspect land at Buck Lake, but it was on his way back to Calgary that he stopped at Battle Lake and found the land he had been dreaming of. The deep, clear water of the lake was beautiful, but what intrigued William most were the tall birch trees that reminded him of his home back in Sweden.

The family's arrival to their new home was memorable. They got stuck in the mud many times on the way from the highway to the lake. And as they settled in, they were graciously welcomed by howling coyotes, hollering loons and lightning and thunder.

Their first living arrangements were very temporary. "The kitchen was an open campfire beside a sprawling willow tree," recalls Verner. The bedroom was a frame of poles covered on three sides with blankets, and the living room... 126 acres of dense bush.

The first project for the young family was most certainly a house. William borrowed a boat and one day when there was a suitable easterly wind, rowed to the east end of the lake to pick up some slabs of lumber. He towed these back down the lake with Verner and Solveig enjoying a ride on the raft of slabs. With the help of a friend, William was able to finish the slab house in time for some new arrivals. Verner and Solveig still vividly remember the car headlights shining down the trail to the house, bringing their mother and two twin baby brothers Billy and Bobby.

Farming the land was hard work. In the first year they grew a little garden and started clearing a bench on Mount Butte above the house. Clearing was done by going round

and round with a three foot wide trench throwing the dirt inwards into the previous trench. William had heard that to have really fertile soil the top 18 inches to 2 feet should be well mixed. This method was time consuming, and for the first years it was the lake and the bush that provided most of the food.

Rabbits were a mainstay - especially in those early years. "Dad would line up two or three rabbits in a row so he only had to use one

market and Solveig and Verner made the bus trip every Monday, Wednesday and Friday. Three times each week they'd go from cottage to cottage pulling a wagon piled high with boxes of fresh vegetables. The highest sales for any day was \$20. Another partial quarter of land was bought at the west end of Mount Butte a few years later. On this land the family expanded their market garden by another five acres with the produce being hauled home in boats.



The Loov family pose for a portrait at Battle Lake.

bullet," says Verner. "The bullets were expensive - a half cent each." Fish were also a staple. Whitefish, netted under the ice in the winter and from a boat in the summer, provided tasty food which was improved by smoking. The fish were split, spread with a small handful of salt and left to soak in the brine overnight. The next day they were smoked by a hot fire dampened down to make thick, heavy smoke.

William tried his hand at a number of ventures in order to make money. Unfortunately, many were unsuccessful, or yielded such a small profit his time and effort were not justified. One of the most successful endeavours came a few years later as the garden became larger and vegetables more plentiful. With an abundance of vegetables, the family packed them in large cardboard cartons and ventured to Ma-Me-O Beach. They soon discovered there was an untapped

Although there was a lot of work to be done, time was made for schoolwork. The children received correspondence lessons from Edmonton. "I remember one beautiful spring day when the fish were running and the lessons became especially difficult for Solveig and I to concentrate on," says Verner. "Father compromised and put out tables and chairs by a shallow part of the creek. We'd work on our lessons until we heard a fish splashing. We'd catch the fish and then have to go straight back to our lessons."

Things were hard back then, but they weren't all bad, and some 50 years later Verner is keen to protect the area where he, his sister and brothers hold so many memories. The former teacher and high school counsellor says the land should be protected in its natural state. "It is an area with good wildlife and beautiful habitat," he added. The Department of Forestry, Lands and Wildlife agree and negotiations are currently underway to preserve the land as a natural area.

And what a lovely area it is. The rolling hills flow down into valleys and marshlands. White tail deer, elk and beaver are just a few of the species that have been spotted. As well, various species of breeding and migrating birds use the lake and marshlands. And of course there are the birch trees, the very thing which brought William Loov to settle on the land. The wonderful history of Battle Lake North and the Loov family will now be shared with countless others as the land is preserved as a natural area.

Editors Note: This land has now been acquired and is scheduled to be designated as the Mount Butte Natural Area. It will include the former Battle Creek and a portion of the Battle Lake South natural areas to form a relatively large continuous block of natural habitat at the northwest end of Battle Lake.

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Feather Care

While on an outing in the country, there is something enjoyable, entertaining and utterly fascinating about the wide variety of small songbirds that can be seen. Their charming antics, cheerful tunes and colorful plumage are a delight for all ages.

Alberta Forestry, Lands and Wildlife, in partnership with AGT Limited, run Feather Care - a nesting program intended to complement the efforts of conservation and naturalist groups throughout the province.

In 1989, AGT employee Brian Cowan came up with the idea of converting buried cable markers into nestboxes. The conversion involved adding a top, bottom, interior mesh and two entrance holes.

Together with Alberta Forestry Lands and Wildlife, Ellis Bird Farm Biologist Mryna Pearman and Strathcona County Conservation Program Director, Carol Smith, Brian conducted a two-year pilot project, which required the construction and monitoring of over 100 nestboxes.

According to Fish and Wildlife experts, a nestbox program is considered successful if it achieves a 35 - 40 per cent occupancy rate. The two-year Feather Care pilot project boasted an average occupancy rate of 65 per cent. This is an outstanding rate and resulted in the program receiving full endorsement from all partners.

After continuous monitoring, Brian modified the Feather Care nestbox design to meet the needs of known nesters such as black-capped chickadees, house wrens, mountain bluebirds and tree swallows.

The Feather Care program provides an excellent opportunity for all Albertans, especially youngsters, to enjoy and learn more about native birds. Individuals are encouraged to adopt and maintain nestboxes and provide nesting information to regional coordinators. Nesting information gathered throughout the province will be used to produce an annual report, which will be available to all interested participants.

Benefits of the program are two-fold. In addition to giving the partners an opportunity to expand their commitment to conservation, Feather Care increases awareness of buried cable markers and decreases damage to buried cable.

For more information on the Feather Care Program contact:
Brian B. Cowan, Project Manager
Phone: (403) 493-6385

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Ecological Integrity of Protected Areas

activity, however, can be so concentrated or inappropriately located that substantial disturbance occurs. Cumulative impacts and long-term access problems are often serious results of this activity. Proper monitoring and management can keep petroleum and natural gas activities from having serious long-term impacts.



Information sharing with partners, including surrounding landowners and stakeholders is an important element of successful management.

Forest management in protected areas usually involves decisions regarding fire and pest controls. Few protected areas are large enough to have self-sustaining ecosystems, in which fire and pest controls can be dealt with independently from surrounding lands. Even in the larger areas where these natural events could perhaps run their course, such controls have often been in place for decades, resulting in an unnatural mosaic of forest vegetation.

Much of the grassland of Alberta has evolved with grazing, by native ungulates, as an integral ecological process. Cattle, however, do not entirely mimic native grazers in their pattern of grazing and effects on grasslands. Therefore, grazing must be at least considered, but not automatically allowed, for protected areas that contain such grasslands. Many protected areas with grasslands may have specific management goals or legislative and/or policy requirements that do not permit grazing.

The maintenance of a protected area's ecological integrity is an important task. Volunteer stewards, in cooperation with government staff, play an important role in ensuring that our Natural Areas maintain their long-term ecological integrity.

